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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/776,966 | 02/11/2004 | Michael Waters | 69398 | 3570 |
| 22242 | 7590 | 11/03/2005 | EXAMINER | |
| FITCH EVEN TABIN AND FLANNERY 120 SOUTH LA SALLE STREET SUITE 1600 CHICAGO, IL 60603-3406 | | | LU, JIPING | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3749 | |

DATE MAILED: 11/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/776,966

Applicant(s)

WATERS, MICHAEL

Examiner

Jiping Lu

Art Unit

3749

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 is/are allowed.
- 6) ☒ Claim(s) 11-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 11-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sterick (U. S. Pat. 2,950,713) in view of Waters (U. S. Pat. 6,164,273).

Sterick shows a heating apparatus comprising a heating head 6 with a central longitudinal axis, a burner assembly 3-7 for generating combustion gases, a plurality of isolated flue chambers 8 spaced about the head 6, a cover member 9 over the heating head extending radially outward from the central axis and downward along the heating head (see element 10) for reflecting stray radiant heat generated by the head, an open top of the heating head (see Figs 1-3, the top of the heating head 1,6 is open) and a vertical space between the dome cover member 9 and open top of the head to permit the combustion gases to escape therefrom (see Figs. 1-3, the vertical space is formed between the open top of heating head 1,6 and bottom of the cover member 9). For claim 16, Sterick also shows a tubular shaped inner wall 6 with a central longitudinal axis and a generally tubular outer wall 1 concentrically disposed outside the inner wall 6. Said outer wall 1 has alternating upraised portions and intervening lands and forms plurality of isolated flue chambers 8. For claim 20, see support member 2. For claim 21, the outer layer of inner wall 6 is deemed to be insulative. The heating apparatus of Sterick as above

includes all that is recited in claims 11-21 except for the dome shaped cover member and the numerical ranges and dimension of burner assembly and the material of the outer wall as claimed in claims 12-15 and 17-19. Waters teaches a heating apparatus with a dome cover member 208 for reflecting stray radiant heat. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the heating apparatus of Sterick to include a dome cover member as taught by Waters in order to more efficiently reflect the stray radiant heat generated by the head. With regard to claims 12-15 and 17-19, the claimed numerical ranges and dimension are deemed to be obvious matter of adjustments in order to obtain an optimal operation since applicant has not disclosed that the claimed burner assembly ranges and dimension solve any stated problem in a new or unexpected way or is for any particular purpose which is unobvious to one of ordinary skill in the art and it appears that the claimed feature does not distinguish the invention over similar features in the prior art. With regard to the claimed material of the outer wall, it would have been obvious to one having ordinary skill in the art at the time the invention was made to design the outer wall with any desired material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Allowable Subject Matter

3. Claims 1-10 are allowed.

Response to Arguments

4. Applicant's arguments with respect to claims 11-21 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

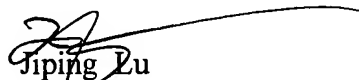
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jiping Lu whose telephone number is 571 272 4878. The examiner can normally be reached on Monday-Friday, 9:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, EHUD GARTENBERG can be reached on 571 272-4828. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3749

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jiping Lu
Primary Examiner
Art Unit 3749

J. L.